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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,977	09/11/2000	Peter James Hughes	36-1359	1871

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ARLINGTON, VA 22203

EXAMINER
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FOSTER, ROLAND G

ART UNIT	PAPER NUMBER
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2645

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/623,977

Applicant(s)

HUGHES, PETER JAMES

Examiner

Roland G. Foster

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the amendment, filed on Jan. 06, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Specification***

The amendment filed July 26, 2004 and the amendment filed January 06, 2005 are objected to under 35 U.S.C. 132 because they introduce new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material appears to be intended to remove from the specification a basis for the examiner's interpretation that the applicant finds disadvantageous, namely that the term "multichannel connection" can be interpreted as including signal mixing (as discussed below and in previous Office actions). Specifically, Fig. 2 of the applicant's amendment indicates that the centralized processing platform 100 outputs a multichannel signal. In the amendment of July 26, 2004, the applicant removed the phrase "[t]he signal mixing" from the sentence "[t]he signal mixing can take place in either the user's terminal equipment, or in a centralised processing platform as is shown in Figure 2" (page 3 of the specification) (emphasis added) and replaced the term with a new phrase "[a] signal concentration." Still later in the amendment of January 06, 2005, the applicant removed this amended sentence altogether. Thus, instead of the specification clearly disclosing the signal mixing at the centralized platform results in a multi-channel output, the amended specification excludes any role for signal mixing.

The applicant points to sections of the specification directed to different embodiments, but nowhere the specification rise to the level where the objective and textual presence of the term "signal mixing...in either the user's terminal equipment, or in a centralized processing platform" (as present in the applicant's original disclosure filed on September 11, 2000) should

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be disregarded. Pointing to different embodiments is not enough, the applicant should point to sections of the specification that expressly or impliedly exclude signal mixing from the applicant's original inventive concept. Otherwise, applicant's would be routinely permitted to delete unfavorable subject matter from the specification in response to an examiner's reasonably broad interpretation that was consistent with the specification. Thus, the applicant would be able to profoundly and routinely alter claim scope in a manner not envisioned and even contradicted by the applicant's original specification.

### ***Response to Arguments***

Applicant's arguments are premised upon the notion that Ludwig (U.S. Patent No. 5,617,539) only discloses an analog mixing process and that only a "line topology" is used. Instead, Ludwig clearly discloses an embodiment where audio networking, which includes the mixer networks, is accomplished using "digital multiplexing schemes" (col. 7, lines 24-65). As the applicant admitted, "[m]ultiplexing is analogous to carrying eggs in an egg box, where it is possible to handle the eggs separately on receipt" (see the last paragraph on page 7 of the amendment, filed on January 06, 2005). Thus, it is possible to handle the digitally multiplexed, audio streams of Ludwig separately. Still further and as cited in the last Office action, Ludwig discloses that sums are composed and decomposed in distributed fashion (col. 13, lines 1-13), and thus the digitally multiplexed streams are composed and decomposed in a distributed fashion upon receipt. Finally, in the star topology embodiment, an A/V switch may be responsible for providing several different minus-1 mixes thus clearly requiring the ability to handle each received digital audio stream separately (Fig. 16 and col. 14, lines 43-50).

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For the above reasons, the applicant's arguments were not deemed persuasive and the following rejections are repeated.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification contains new matter thus either directly or indirectly introducing new matter into the claims. Specifically, in a series of two amendments, the applicant first modified and then cancelled an entire sentence from the specification that the examiner was relying upon for a reasonably broad interpretation of the claims consistent with the specification (as discussed above). With the most recent amendment, the alterations to the specification clearly reach a level where they affect the scope of material covered by the claims (e.g., the claims would encompass broadened matter in the specification made possible by the deletion of a critical sentence from the specification). If both the claims and specification contain new matter either

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directly or indirectly, both a rejection and an objection (as discussed above) should be made by the examiner.

The claim limitations at issue include "multichannel" (e.g., claim 1) as discussed the Objection to the Specification above.

A person of ordinary skill in the art at the time the application was filed would not have recognized that that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. For example, the applicant broadened the claimed invention by removing originally and expressly disclosed subject matter from the claim (e.g., a sentence supporting the examiner's interpretation of the term "multichannel" as discussed above). Further, the original disclosure fails to expressly or impliedly support the case that the originally and expressly disclosed subject matter should have been deleted from the specification in order to broaden the scope of the claims.

Claims 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,617,539 ("Ludwig"), of record.

With respect to claim 22, see the following paragraphs for details on how Ludwig discloses particular limitations within the claim.

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The limitation "teleconferencing system" reads on Figs. 1, 3, and col. 8, line 66 – col. 9, line 6.

The limitation "a conference bridge including a concentrator that receives a plurality of M input channels, and a plurality of multichannel connections each of which passes a plurality of N individual channels, the N individual channels being a subset of the M input channels" reads on Ludwig as follows. The conference bridge 35 (Fig. 3) comprises audio mixing circuitry 38 (Fig. 9 and col. 12, lines 63-67), which mixes the participant input channels 114-n into several, summed output signals (e.g., 38a-1, 38a-2, 38b) (col. 13, lines 1-6). The conference bridge 35 then mixes the input signals into a "sum" output (mix) 38b. Thus, the conference bridge concentrates M input channels into summed output signals, otherwise the "summing" process disclosed by Ludwig above would not occur. Further, the summed output signals 38a-1 to 38b are multichannel (summed) output comprising the N individual channels, which are a subset of the M input channels.<sup>1</sup>

The limitation "a plurality of terminal equipments each of which is connected to the concentrator of the conference bridge through a respective one of the plurality of multichannel connections passing a plurality of N individual channels, each of the terminals including a

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<sup>1</sup> Interpreting the claim term "multichannel" as an audio output comprising a mix of several channels is consistent with the applicant's specification, which states that that the centralized processing platform 100 outputs a multichannel signal (Fig. 2) and that the "signal mixing can take place either...in a centralized processing platform as is shown in Figure 2" (page 3, lines 28-31). Thus, signal mixing at the centralized processing platform outputs a multichannel signal. Thus, the signal mixing at the conference bridge of Ludwig provide multichannel output to the terminal equipment for processing.

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demultiplexer which separates the N individual channels received through the respective one of the multichannel connections" reads on Ludwig as follows. The plurality of terminal equipments (A/V switches 30 at user locations A, B, C, and D) receive multi-channel output comprising the N individual channels from the conference bridges 35 and their associated concentrator output (as discussed above). In addition, the A/V switch 30 has a demultiplexer means to separately process each received channel to provide a plurality of outputs.<sup>2</sup> For example, Fig. 15 illustrates that the same model A/V switch 30 has the capability to separately process (demultiplex) each of the received channels A, B, C and D of the received multichannel output from the conference bridge into individual channels.<sup>3</sup> In another example, Fig. 14 illustrates that the A/V switch 30 at Site No. 1 (participants A and B) has the means to individually process (demultiplex) the received channels A, B, C, and D of the received multichannel SIMULTANEOUSLY.<sup>4</sup>

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<sup>2</sup> Note that Ludwig clearly discloses an embodiment where audio networking, which includes the mixer networks, is accomplished using "digital multiplexing schemes" (col. 7, lines 24-65). As the applicant admitted, "[m]ultiplexing is analogous to carrying eggs in an egg box, where it is possible to handle the eggs separately on receipt" (see the last paragraph on page 7 of the amendment, filed on January 06, 2005). Thus, it is possible to handle the digitally multiplexed, multi-channel audio streams received from the conference bridge of Ludwig separately. As cited above, Ludwig also discloses that sums are composed and decomposed in distributed fashion (col. 13, lines 1-13), and thus the digitally multiplexed streams are composed and decomposed in a distributed fashion upon receipt.

<sup>3</sup> Multiplex is interpreted as transmitting two or more signals on one signal. Thus, the conference bridge transmits two or more input channels using the mixing (summing) processes as one signal (summed output or multichannel output) (see Footnote 1). Also note that Ludwig clearly discloses that the A/V switches receive and process the digitally multiplexed, individual audio streams (see Footnote 2). Thus, "demultiplexing" is interpreted as recovering the original two or more signals from the conference bridge mixed (summed) output, which is the function performed by the A/V switch disclosed by Ludwig.

<sup>4</sup> Note that if a star topology embodiment were used, an A/V switch would be responsible for providing several different minus-1 mixes thus clearly requiring the ability to handle each received digital audio stream separately (Fig. 16, col. 14, lines 43-50). See also Footnote 2.



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Claim 23 differs substantively from claim 22 in that claim 23 recites a method comprising steps equivalent to the system functions recited in claim 22. Therefore, see the claim 22 rejection for further details.

Claim 26 differs substantively from claim 21 in that claim 26 is recited more broadly. Therefore, see the claim 22 rejection for further details.

With respect to claims 24 and 25, the system disclosed by Ludwig is certainly selects and passes conference participant video and audio data (useful information). See also the claim 3 rejection regarding active (useful) channel detection.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

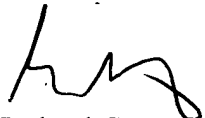
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roland G. Foster whose telephone number is (571) 272-7538. The examiner can normally be reached on Mon to Fri from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roland G. Foster  
Primary Patent Examiner  
May 16, 2005